

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) A USB system for data communication between a processor and IDE devices, comprising:
 - a plurality of IDE devices;
 - a plurality of USB-to-IDE bridges, wherein each IDE device is connected to a respective USB-to-IDE bridge; and
 - a USB controller, wherein the USB-to-IDE bridges are connected to the USB controller via a USB bus, each USB-to-IDE bridge providing protocol conversion for communication between the corresponding IDE device and the USB controller, whereby the processor can communicate with the IDE devices via the USB controller.
2. (previously presented) The system of claim 1, wherein the USB controller is connected to the processor via a PCI bus.
3. (Original) The system of claim 1, further comprising one or more USB hubs, each USB hub connected between two or more USB-to-IDE bridges and a USB controller.
4. (previously presented) The system of claim 1, further comprising a plurality of USB controllers connected to the processor, wherein one or more USB-to-IDE bridges are connected to each USB controller via a USB bus, each USB-to-IDE bridge providing protocol conversion for communication between the corresponding IDE device and that USB controller, whereby the processor can communicate with the IDE devices via the USB controllers.
5. (previously presented) The system of claim 1, wherein one or more IDE devices can be connected/disconnected to/from the system while the system is operating.

6. (previously presented) The system of claim 1, wherein at least a third IDE device coupled to a corresponding USB-to-IDE bridge can be connected/disconnected to/from the USB controller while the system is operating.

7. (previously presented) The system of claim 1, further comprising at least one USB hub connected between a number of the USB-to-IDE bridges and the USB controller, whereby the processor can communicate with the IDE devices via the USB controller and the USB hub.

8. (Original) The system of claim 7, wherein one or more IDE devices can be disconnected from the system while the system is operating.

9. (Original) The system of claim 1, wherein at least one additional IDE device coupled to a corresponding USB-to-IDE bridge can be connected to the hub while the system is operating.

10. (previously presented) A method for connecting multiple IDE devices to a processor for data communication, comprising the steps of:
providing multiple USB-to-IDE bridges;
connecting each IDE device to a respective one of the USB-to-IDE bridges;
providing a USB controller; and
connecting the USB-to-IDE bridges to the USB controller via USB bus, each USB-to-IDE bridge providing protocol conversion for communication between the corresponding IDE device and the USB controller, whereby the processor can communicate with the IDE devices via the USB controller.

11. (previously presented) The method of claim 10, wherein the USB controller is connected to the processor via a PCI bus.

12. (previously presented) The method of claim 10, further comprising the steps of hot

plugging/unplugging one or more IDE devices to/from the USB-to-IDE bridges.

13. (previously presented) The method of claim 10, further comprising the steps of connecting/disconnecting one or more of the IDE devices to/from the system while the system is operating.

14. (previously presented) The method of claim 10, further comprising the steps of connecting/disconnecting at least a third IDE device coupled to a corresponding USB-to-IDE bridge, to/from the USB controller while the system is operating.

15. (previously presented) The method of claim 10, further comprising the steps of:
providing at least one USB hub;
connecting each hub to a USB controller; and
connecting two or more USB-to-IDE bridges to each hub, such that each hub is connected between a USB controller and two or more USB-to-IDE bridges.

16. (Original) The method of claim 15, further comprising the steps of disconnecting one or more of the IDE devices from the system while the system is operating.

17. (Original) The method of claim 15, further comprising the steps of connecting at least one additional IDE device coupled to a corresponding USB-to-IDE bridge, to one of the hubs while the system is operating.

18. (previously presented) A data storage system, comprising:
a plurality of IDE storage devices;
a plurality of USB-to-IDE bridges, wherein each IDE storage device is connected to a respective USB-to-IDE bridge; and

a USB controller, wherein the USB-to-IDE bridges are connected to the USB controller via USB bus, each USB-to-IDE bridge providing protocol conversion for communication between the corresponding IDE device and the USB controller, whereby a processor can communicate with the IDE storage devices via the USB controller.

19. (original) The data storage system of claim 18, further comprising a carrier for each IDE data storage device, such that each IDE disk drive and corresponding USB-to-IDE bridge are stored in the respective carrier.

20. (Original) The data storage system of claim 18, wherein one or more IDE storage devices can be disconnected from the system while the system is operating.

21. (previously presented) The data storage system of claim 18, wherein at least a third IDE disk device coupled to a corresponding USB-to-IDE bridge can be connected to the USB controller while the system is operating.

22. (previously presented) The data storage system of claim 18, further comprising at least one USB hub connected between a number of the USB-to-IDE bridges and the USB controller, whereby the processor can communicate with the IDE devices via the USB controller and the USB hub.

23. (previously presented) The data storage system of claim 18, further comprising one or more USB hubs, each USB hub connected between two or more USB-to-IDE bridges and the USB controller.

24. (Original) The data storage system of claim 23, wherein at least one or more IDE storage devices can be disconnected from the system while the system is operating.

25. (Original) The data storage system of claim 23, wherein at least one additional IDE storage device coupled to a corresponding USB-to-IDE bridge can be connected to one of the USB hubs while the system is operating.

26. (Original) The data storage system of claim 23, wherein at least one additional IDE storage device coupled to a corresponding USB-to-IDE bridge and associated hub, can be connected to the USB controller while the system is operating.

27. (previously presented) The data storage system of claim 23, wherein at least one IDE storage device coupled to a corresponding USB-to-IDE bridge and associated hub, can be disconnected from the USB controller while the system is operating.

Claims 28-42. (Canceled).